

5 Process for the preparation of aqueous emulsions of blocked
polyisocyanates

10 Abstract

15 This invention relates to a process for the preparation of
aqueous emulsions of blocked (poly)isocyanates, this process comprising
the steps consisting successively in:

a) placing an isocyanate composition containing free
isocyanate functions in contact with at least one blocking agent A in the
20 presence of a surfactant B and an aqueous phase, the said isocyanate
composition being added gradually to a stock containing at least some of
the aqueous phase and at least some of the blocking agent;
and optionally,

b) subjecting the mixture obtained to a shear (speed gradient)
25 of greater than 1000 s^{-1} , preferably greater than $20,000\text{ s}^{-1}$ and less than
 $1,000,000\text{ s}^{-1}$, preferably less than $200,000\text{ s}^{-1}$, and

c) repeating step b), optionally after step a) has been
repeated, until a stable emulsion is obtained whose particles have a
Sauter diameter of greater than $0.1\text{ }\mu\text{m}$, preferably $0.2\text{ }\mu\text{m}$, and less than
30 $5\text{ }\mu\text{m}$, preferably less than $2\text{ }\mu\text{m}$, and a dispersion width of less than $5\text{ }\mu\text{m}$.

Figs.: none